ELSEVIER

Available online at www.sciencedirect.com

ScienceDirect

Aquaculture 267 (2007) 335–336

Aquaculture

www.elsevier.com/locate/aqua-online

Contents of *Aquaculture*, Volume 267

VOL. 267 NOS. 1–4 **3 July 2007**

Special Issue: Nutrition and Feeding of Fish

Guest Editors: R.P. Wilson, G. Corraze and S. Kaushik

Nutrition and feeding of fish
R.P. Wilson (Mississippi State, MS, United States), G. Corraze and S. Kaushik (St-Pée-sur-Nivelle, France) 1

Micronutrients and Health

Role of nutrients in skeletal metabolism and pathology in fish — An overview
S.P. Lall and L.M. Lewis-McCrea (Halifax, NS, Canada) 3

Live yeasts in the gut: Natural occurrence, dietary introduction, and their effects on fish health and development
F.J. Gatesoupe (Plouzané, France) 20

Influence of dietary vitamin C and bovine lactoferrin on blood chemistry and non-specific immune responses of Japanese eel, *Anguilla japonica*
T. Ren, S. Koshio, M. Ishikawa, S. Yokoyama, F.R. Micheal, O. Uyan and H.T. Tung (Kagoshima, Japan) 31

The effects of dietary selenium on the oxidative stress of grouper, *Epinephelus malabaricus*, fed high copper
Y.-H. Lin (Keelung,Taiwan) and S.-Y. Shiau (Shalu Taichung County, Taiwan) 38

Effects of dietary phosphorus and phospholipid level on growth, and phosphorus deficiency signs in juvenile Japanese flounder, *Paralichthys olivaceus*
O. Uyan, S. Koshio, M. Ishikawa, S. Uyan, T. Ren, S. Yokoyama, C.F. Komilus and F.R. Michael (Kagoshima, Japan) 44

Broodstock and Larval Nutrition

Effect of n-3 and n-6 fatty acids in broodstock diet on reproduction and fatty acid composition of broodstock and eggs in the Japanese eel *Anguilla japonica*
H. Furuita (Mie, Japan), K. Hori, Suzuki (Aichi, Japan), T. Sugita and T. Yamamoto (Mie, Japan) 55

Tracers in fish larvae nutrition: A review of methods and applications
L.E.C. Conceição, S. Morais (Faro, Portugal) and I. Rønnestad (Bergen, Norway) 62

Modelling retinoid content in live prey: A tool for evaluating the nutritional requirements and development studies in fish larvae
G. Giménez (Tarragona, Spain), Y. Kotzamanis (Athens, Greece), F. Hontoria (Castellón, Spain), A. Estévez and E. Gisbert (Tarragona, Spain) 76

Pacific bluefin tuna, *Thunnus orientalis*, larvae utilize energy and nutrients of microbial loop
Y. Nakagawa (Wakayama, Japan), M. Eguchi (Nara, Japan) and S. Miyashita (Wakayama, Japan) 83

Changes in the gastrointestinal pH from larvae to adult in Senegal sole (*Solea senegalensis*)
M. Yúfera and M.J. Darías (Cádiz, Spain) 94

Requirements

Modeling lysine requirements of *Oreochromis niloticus* due to principles of the diet dilution technique
F. Liebert and K. Benkendorff (Goettingen, Germany) 100

Total aromatic amino acid requirement of Indian major carp *Labeo rohita* (Hamilton) fry
M.A. Khan and S.F. Abidi (Aligarh, India) 111

Effect of the dietary essential amino acid pattern on growth, feed utilization and nitrogen metabolism of European sea bass (*Dicentrarchus labrax*)
H. Peres and A. Oliva-Teles (Porto, Portugal) 119

Optimum dietary protein and lipid specifications for juvenile malabar grouper (*Epinephelus malabaricus*)
L.A. Tuan (Khanh Hoa, Viet Nam) and K.C. Williams (Cleveland, Qld., Australia) 129

Metabolism and Growth

Evidence of three growth stanzas in rainbow trout (*Oncorhynchus mykiss*) across life stages and adaptation of the thermal-unit growth coefficient
A. Dumas, J. France and D.P. Bureau (Ontario, Canada) 139

A new approach to diet optimisation: A re-analysis using European whitefish (*Coregonus lavaretus*)
K. Ruohonen (Turku, Finland), S.J. Simpson (Sydney, NSW, Australia) and D. Raubenheimer (Auckland, New Zealand). 147

A preliminary study on growth and protein synthesis of juvenile barramundi, *Lates calcarifer* at different temperatures
R.S. Katersky and C.G. Carter (Launceston, Tasmania, Australia) 157

Is it possible to influence European sea bass (*Dicentrarchus labrax*) juvenile metabolism by a nutritional conditioning during larval stage?
M. Vagner, J.L. Zambonino Infante, J.H. Robin and J. Person-Le Ruyet (Plouzané, France) 165

Effects of feed composition on life history developments in feed intake, metabolism, growth and body composition of European eel, *Anguilla anguilla*
L.T.N. Heinsbroek, P.L.A. Van Hooff, W. Swinkels, M.W.T. Tanck, J.W. Schrama and J.A.J. Verreth (Wageningen, The Netherlands). 175

Distinct role of insulin and IGF-I and its receptors in white skeletal muscle during the compensatory growth of gilthead sea bream (*Sparus aurata*)
N. Montserrat (Barcelona, Spain), P. Gómez-Requeni (Castellón, Spain), G. Bellini (Barcelona, Spain), E. Capilla (Stony Brook, New York, USA), J. Pérez-Sánchez (Castellón, Spain), I. Navarro and J. Gutiérrez (Barcelona, Spain). 188

Combined replacement of fish meal and oil in practical diets for fast growing juveniles of gilthead sea bream (*Sparus aurata* L.): Networking of systemic and local components of GH/IGF axis
L. Benedito-Palos, A. Saera-Vila, J.-A. Calduch-Giner (Castellón, Spain), S. Kaushik (Saint-Pée-sur-Nivelle, France) and J. Pérez-Sánchez (Castellón, Spain) 199

Differential metabolic and gene expression profile of juvenile common dentex (*Dentex dentex* L.) and gilthead sea bream (*Sparus aurata* L.) in relation to redox homeostasis
A. Bermejo-Nogales, A. Saera-Vila, J.A. Calduch-Giner, J.C. Navarro, A. Sitjà-Bobadilla and J. Pérez-Sánchez (Castellón, Spain) 213

Influence of conjugated linoleic acid on growth, lipid composition and hepatic lipogenesis in juvenile European sea bass (*Dicentrarchus labrax*)
L.M.P. Valente (Porto, Portugal), N.M. Bandarra (Lisboa, Portugal), A.C. Figueiredo-Silva (Porto, Portugal), A.R. Cordeiro (Lisboa, Portugal), R.M. Simões (Porto, Portugal) and M.L. Nunes (Lisboa, Portugal) 225

Impact of dietary oil source on product quality of farmed Atlantic cod, *Gadus morhua*
T. Mørkøre (Ås, Norway), C. Netteberg (Norway), L. Johnsson and J. Pickova (Uppsala, Sweden) 236

Impact of $n-3$ fatty acid chain length and $n-3/n-6$ ratio in Atlantic salmon (*Salmo salar*) diets
D. Menoyo, C.J. Lopez-Bote, A. Diez (Madrid, Spain), A. Obach (Stavanger, Norway) and J.M. Bautista (Madrid, Spain) 248

Dietary influence of replacing fish meal and oil with canola protein concentrate and vegetable oils on growth performance, fatty acid composition and organochlorine residues in rainbow trout (*Oncorhynchus mykiss*)
M.D. Drew, A.E. Ogunkoya, D.M. Janz and A.G. Van Kessel (Saskatoon, Saskatchewan, Canada) 260

Comparison of intestinal gene expression in Atlantic cod (*Gadus morhua*) fed standard fish meal or soybean meal by means of suppression subtractive hybridization and real-time PCR
E. Lilleeng, M.K. Frøystad, K. Vekterud, E.C. Valen and Å. Krogdahl (Oslo, Norway) 269

Feed Ingredients

Use of soybean meal and phytase for partial replacement of fish meal in the diet of red sea bream, *Pagrus major*
A.K. Biswas (Wakayama, Japan), H. Kaku (Mie, Japan), S.C. Ji, M. Seoka and K. Takii (Wakayama, Japan). 284

Different sources of microbial phytase in plant based low phosphorus diets for Nile tilapia *Oreochromis niloticus* may provide different effects on phytate degradation
F. Liebert (Goettingen, Germany) and L. Portz (Cruz das Almas, Brazil) 292

Phosphorus availability of inorganic phosphates and fish meals in European sea bass (*Dicentrarchus labrax* L.) juveniles
A. Pimentel-Rodrigues and A. Oliva-Teles (Porto, Portugal) 300

Effect of the incorporation level of dehulled soybean meal into test diet on apparent digestibility coefficients for protein and energy by juvenile haddock, *Melanogrammus aeglefinus* L.
J.-D. Kim (Chuncheon, South Korea), S.M. Tibbetts, J.E. Milley and S.P. Lall (Halifax, Nova Scotia, Canada). 308

Guar gum in rainbow trout (*Oncorhynchus mykiss*) feed: The influence of quality and dose on stabilisation of faecal solids
A. Brinker (Langenargen, Germany) 315

Characterization, gene cloning, and expression of a novel xylanase XYNB from *Streptomyces olivaceoviridis* A1
Y. Wang, H. Zhang, Y. He, H. Luo and B. Yao (Beijing, PR China) 328

Contents of *Aquaculture*, Volume 267. 335